

Response Under 37 CFR §1.111
Serial No.: 10/780,040
Response filed March 30, 2006
In response to the Office action mailed December 30, 2005

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Remarks

Responsive to the Office action mailed December 30, 2006, Applicants provide the remarks herein. Reexamination and allowance of the subject application are respectfully requested.

New Claims

New claims 14 and 15 have been added. Support for these claims can be found, for example, in paragraphs [0033] and [0037] of the application as published, as well as in the various figures. No new matter is believed entered by these new claims.

Additionally, new claims 16 and 17 have been added. Support for these claims can be found, for example, in paragraph [0012] of the application as published. No new matter is believed entered by these new claims.

Rejections Under 35 USC §112

Claims 4, 6, 12, and 13 were rejected under 35 USC §112, first paragraph. In particular, it was asserted that in each of the independent claims the relationship between the number of control elements and the number of shaft portions appeared to introduce new matter. Additionally, claims 4, 6, 12, and 13 were rejected under 35 USC §112, second paragraph, because the relationship between the number of shaft portions and the number of control elements was believed to be vague and indefinite. The claims have been amended in the following manner to address these rejections.

Independent claims 12 and 13 have each been amended to clarify the relationship between the number of control elements and the number of shaft portions in a manner consistent with the disclosure. Independent claim 12 has been amended, for example, to recite “a shaft portion between each two neighboring control elements.” (Emphasis added) Claim 12 has also been amend to more clearly recite “a recess positioned between said first and second ends of each said shaft portion.” (Emphasis added). Similarly, independent claim 13 has been amended, for example, to more clearly recite “one of said shaft portions being positioned between each two neighboring control elements.” (Emphasis added) The foregoing amendments are consistent with the structure depicted in FIGS. 1 through 3 and disclosed, for example, in paragraphs

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[0031]-[0032] and [0035] of the application as published. Accordingly, no new matter is believed introduced by these amendments.

It is respectfully submitted that amended independent claims 12 and 13 now more clearly recite the a shaft portion positioned between each two neighboring control elements, as disclosed by the specification. Additionally, independent claims 12 and 13 clearly recite that a recess is disposed between the first and second ends of each shaft portion. The recitation of these aspects is consistent with the original disclosure. It is, therefore, respectfully submitted that as amended the relationship between the recess, the shaft portions, and the control elements is consistent with, and supported by, the original disclosure. It is further respectfully submitted that the relationships between these features of the invention of claims 12 and 13 is now clear and definite. Withdrawal of the rejections under 35 USC §112 is respectfully requested in view of the amendments and remarks herein.

Rejections Under 35 USC §102

Claims 12 and 13 were rejected under 35 USC §102(b) as being anticipated by Mayer et al. (US Patent No. 5,996,549). This rejection is overcome for the following reasons.

In dependent claim 12 has been amended to read:

12. (currently amended) An insert comprising:
a plurality of openings each fitted with a flap device for influencing the flow cross-section in said plurality of openings wherein each flap device comprises a control element arranged in each opening,
a shaft portion between each two neighboring control elements, each said shaft portion having a first and second end and a cranked configuration in a region between the first and second ends,
a recess positioned between said first and second ends of each said shaft portion, said recess capable of engaging connecting means, and
means for mounting the shaft portions rotatably with respect to the openings, and means operable to fix the two neighboring control elements in torsionally stiff relationship to the first and second end of the shaft portion.
(Emphasis added)

As amended, independent claim 13 reads:

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13. (currently amended) A plurality of flap devices arranged in a row for influencing the flow cross section in a plurality of medium carrying conduits comprising:

a plurality of control elements each arrangeable in a respective one of said conduits,

a plurality of shaft portions each having a first and second end and having a cranked configuration in a region between the first and second ends, one of said shaft portions being positioned between each two neighboring control elements,

means for mounting the shaft portions rotatably with respect to the conduits, and

means operable to fix first and second control elements in torsionally stiff relationship to the first and second ends of each of the shaft portions,

said row of flap devices having an axis of rotation and capable of being fitted with an insert having a recess capable of engaging connecting means. and wherein said recess is capable of extending beyond the axis of rotation of said flap device. (Emphasis added)

Mayer et al. generally disclose an arrangement of control flaps which may be associated with an inlet passage of an internal combustion chamber. See, e.g., Col. 1, l. 6-15. By contrast to the invention of independent claim 12 and independent claim 13, however, Mayer et al. teach "the control flaps 20, 22, 24, 26 are pivoted by means of a common, asymmetrically arranged pivot axle 30 by an eccentric 32 and a vacuum actuator 34." Col. 3, l. 28-30. Consistent with this disclosure, in FIGS. 1 and 2 Mayer et al. depict an arrangement in which four control flaps 20, 22, 24, and 26 are all associated with a single common pivot axle 30. The common pivot axle 30 for all four of the control flaps 20, 22, 24, 26 includes a single eccentric portion 32.

Consistent with the foregoing, clearly Mayer et al. do not teach, or even suggest, "a shaft portion between each two neighboring control elements" and wherein "each said shaft portion having ... a cranked configuration in a region between the first and second ends," as required by amended independent claim 12. Correspondingly, Mayer et al. do not teach, or even suggest "a plurality of shaft portions each having ... a cranked configuration," and wherein "one of said shaft portions being positioned between each two neighboring control elements," as recited by independent claim 13.

Additionally, as amended, independent claim 12 recites, in part, an "insert comprising ... a recess positioned between said first and second ends of each said shaft portion." Amended independent claim 13 recites, in part, a "row of flap devices having an axis of rotation and

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capable of being fitted with an insert having a recess wherein said recess is capable of extending beyond the axis of rotation of said flap device." By contrast to these further aspects of independent claims 12 and 13, Mayer et al. do not appear to disclose that the control flaps are associated with an insert having a recess and the claimed relationship between the insert and the shaft portions, etc.

In view of the foregoing, Applicants respectfully submit that Mayer et al. clearly fail to teach, or even suggest, all of the aspects of either independent claims 12 or independent claim 13. Accordingly, Applicants respectfully request that the rejection of claims 12 and 13 as anticipated by Mayer et al. be withdrawn upon reconsideration.

Independent claims 12 and 13 were also rejected under 35 USC §102(b) as being anticipated by Suzuki et al. (US Patent No. 5,005,533). This rejection is overcome for the following reasons.

Suzuki et al. generally teach a two-cycle engine with a fuel injector. In part Suzuki et al. teach a "throttle valve 12 is mounted to each throttle passage 8a of the throttle body 8 and a throttle shaft 13 for fixedly supporting the throttle valve 12 is coupled through a link 14." Col. 3, l. 36-39. That is, as shown, e.g., in FIG. 1, respective shafts of two individual throttle valves are coupled to one another via a link 14. Consistent with this aspect of Suzuki et al., a separate throttle shaft 13 is provided for each of the throttle valves and that these two individual throttle shafts are coupled through the link 14. Accordingly, Suzuki et al. clearly do not teach, or even suggest, "means operable to fix the two neighboring control elements in torsionally stiff relationship to the first and second end of the shaft portion," recited in claim 12 (emphasis added), or "means operable to fix first and second control elements in torsionally stiff relationship to the first and second ends of each of the shaft portions," recited in claim 13 (emphasis added). Rather, Suzuki et al. teach a configuration for coupling entirely separate shafts, i.e., via link 14.

Furthermore, even if the connecting element between the two shafts, i.e., the link 14 shown in FIG. 1, is considered to represent the shaft element consistent with the claimed invention, an interpretation with which Applicants disagree because clearly Suzuki et al. utilize a separate shaft associated with each valve, then the assembly disclosed by Suzuki et al. does not

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teach or suggest a recess which is "positioned between the first and second ends of each said shaft portion, said recess capable of engaging connecting means" as required by claim 12, or "a recess capable of engaging connecting means ... wherein said recess is capable of extending beyond the axis of rotation of said flap device," as recited by claim 13. Particularly, the identified bolt holes and the unidentified "recess in the housing" are not arranged as required by claim 12 or claim 13.

In sum, Suzuki et al. do not disclose, or suggest, "means operable to fix the two neighboring control elements in torsionally stiff relationship to the first and second end of the shaft portion," recited in claim 12, or "means operable to fix first and second control elements in torsionally stiff relationship to the first and second ends of each of the shaft portions," recited in claim 13. Additionally, Suzuki et al. do not teach, or even suggest, a recess which is "positioned between the first and second ends of each said shaft portion, said recess capable of engaging connecting means" as required by claim 12, or "a recess capable of engaging connecting means ... wherein said recess is capable of extending beyond the axis of rotation of said flap device," as recited by claim 13. Accordingly, Suzuki et al. fail to teach, or even suggest, all of the aspects of the invention of either independent claim 12 or independent claim 13. Withdrawal of the anticipation rejection based on Suzuki et al. is respectfully requested in view of the amendments and remarks herein.

Rejections Under 35 USC §103

Claims 4, 12, and 13 were rejected under 35 USC §103(a) as being obvious over Mayer et al. in view of Hatton (US Patent No. 6,135,418). The further consideration of Hatton has been asserted to provide a teaching of methods for connecting a control element to a shaft. Without addressing these particular asserted teachings of Hatton, Applicants respectfully submit that Hatton does not, and has not been asserted to, remedy the deficiencies of Mayer et al. with respect to amended independent claims 12 and 13 discussed at length above. Applicants respectfully request that the rejection of claims 4, 12, and 13 be withdrawn upon consideration of the amendments to independent claims 12 and 13 and the differences between these amended claims and Mayer et al. detailed above.

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Claims 6, 12, and 13 were rejected under 35 USC §103(a) as being obvious over Mayer et al. in view of Pearson et al. (US Patent No. 5,374,032). Similar to Hatton, discussed above, Pearson et al. are relied upon as teaching a flap device with a control element bearing against a flattened portion of a shaft. Again, without addressing these asserted teachings, Pearson et al. has not been asserted to, and does not appear to, remedy the deficiencies in Mayer et al. with respect to independent claims 12 and 13, which are discussed above. Accordingly, the combined teachings of Mayer et al. and Pearson et al. are insufficient to render independent claims 12 or 13, or claim 6 depending upon claim 12, obvious. Withdrawal of this rejection is respectfully requested.

Claims 4, 12, and 13 were rejected under 35 USC §103(a) as being obvious over Suzuki et al. in view of Hatton. Similar to the previous obviousness rejection utilizing the teachings of Hatton, it is respectfully submitted that Hatton does not remedy the deficiencies of Suzuki et al. with respect to independent claims 12 and 13. As such, the combined teachings of Suzuki et al. and Hatton do not teach, or even suggest, every limitation of independent claims 12 or 13, or claim 4 depending upon claim 12. Withdrawal of this rejection is accordingly requested.

Finally, claims 6, 12, and 13 were rejected under 35 USC §103(a) as being obvious over Suzuki et al. in view of Pearson et al. Also as above, Pearson et al. are asserted to teach a flap device with a control element bearing against a flattened portion of a shaft. Without addressing the particular asserted teachings, Pearson et al. has not been asserted to, and does not appear to, remedy the deficiencies in Suzuki et al. with respect to independent claims 12 and 13. The combined teachings of Suzuki et al. and Pearson et al. are insufficient to render independent claims 12 or 13, or claim 6 depending upon claim 12, obvious. Withdrawal of this rejection is respectfully requested.

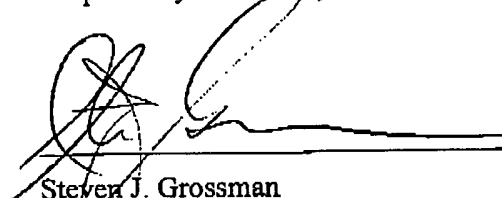
Having overcome all of the outstanding rejections it is respectfully submitted that the application is now in condition for allowance. Early and favorable action is respectfully solicited.

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Respectfully submitted,

A handwritten signature in black ink, appearing to be 'S. Grossman', written over a horizontal line.

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